

REMARKS

This amendment is being filed in response to the Office Action having a mailing date of February 28, 2005. Claims 1, 2, 5, 7, 11-14, 16, 27-28, 31-32, 36-40, and 43-58 are amended as shown. More particularly, independent claims 1, 11, 27, 36, 49, and 54 are amended to recite certain distinctive subject matter. No new matter has been added. With this amendment, claims 1-5, 7-14, 16-18, and 27-58 are pending in the application.

In the Office Action, claims 1-5, 7-10, and 27-35 were rejected under 35 U.S.C. § 112, second paragraph for being indefinite. More specifically, the Examiner stated that the recited display device(s) were unclear and that there was insufficient antecedent basis for "the second formats." Independent claims 1 and 27 have been amended herein to overcome the indefiniteness rejection(s).

In the Office Action, the Examiner rejected claims 1-5, 7, 8, 10, 12, 16, 27-33, 35, 37, 40, 43-48, 50, 51, 55, and 56 as being unpatentable over Radha et al. (U.S. Patent No. 6,806,909) in view of Hensley et al. (U.S. Patent No. 6,754,439). Claims 9, 11, 34, 36, 49, and 54 are rejected as being unpatentable over Radha in view of Hensley and further in view of Hendricks et al. (U.S. Patent No. 6,201,536). Claims 13 and 38 are rejected as being unpatentable over Radha, Hensley, and Hendricks as applied to Dinwiddie, Jr. et al. (U.S. Patent No. 5,434,590). Claims 14 and 39 are rejected as being unpatentable over Radha, Hensley, Hendricks as applied to Lyons (U.S. Patent No. 5,936,968). Finally, the Examiner has rejected claims 17, 18, 41, 42, 52, 53, 57, and 58 as being unpatentable over Radha, Hensley, and Hendricks as applied to Aharoni et al. (U.S. Patent No. 6,014,694).

In essence, the Examiner rejected independent claims 1, 11, 27, 36, 49, and 54 primarily on the basis of Radha and Hensley. That is, the Examiner position was that Radha disclosed all or most of the teachings of these claims, except for the feature of "multiple output streams of video information," such as claimed in claim 1. To supply the missing teachings of Radha, the Examiner combined Hensley with Radha. For the reasons set forth below, the applicants respectfully disagree with the Examiner's rejections and request that the pending claims be allowed.

I. Radha and Hensley Cannot Be Combined

A person skilled in the art would not be motivated to combine Radha with Hensley as the Examiner has done. Moreover, there are teachings in both of these references against making such a combination.

A. Discussion of Radha

With reference to Figure 8 and the accompanying description, Radha discloses a system where a plurality of video sources 201-204 etc. provides video information to respective encoders 230-233 etc. The encoders 230-233 etc. respectively output encoded video signals. The encoded video signals are coupled to splicers 270 and 280 that intermix the encoded video signals into a single data stream. *See, e.g.*, col. 17, lines 37-40 and Figure 8 of Radha.

The single data stream, which is encoded, is provided to a transport 281 for transmission to receiving devices. The receiving device(s) have a decoder 282 that decodes the received encoded data stream for display.

There are thus several noteworthy items about the system of Radha:

1. Radha involves the concept of “many-to-one.” That is, Radha receives several (“many”) input video signals from the video sources 201-204, and intermixes/combines these many input video signals to generate a single (“one”) output data stream.

2. Radha clearly only outputs a single data stream and not multiple output streams—the input video signals are intermixed to produce the single data stream. This is the intent of Radha—Radha’s purpose is to output a single data stream so that viewing several programs will be seamless to the viewer. *See, e.g.*, col. 5, lines 24-28 of Radha. Moreover in the present Office Action, the Examiner has acknowledged that Radha does not disclose multiple output video streams.

3. The single output data stream of Radha is encoded. Therefore, decoding needs to be performed by the decoder 282 of the receiving device after it receives the encoded output data stream. Radha does not output decoded video streams to receiving devices on the other side of the network.

B. Discussion of Hensley

Hensley, in contrast to Radha, does not combine multiple input video signals into a single output video data stream. Rather, Hensley receives multiple simultaneous input video signals and respectively decodes these video signals using a plurality of decoders 20-21. Hensley then uses a switching array 30 to switch between the different decoded output signals, using appropriate timing/clocking mechanisms, to thereby simultaneously provide multiple (separate) decoded output signals at 26 and to provide transition capability between the decoded output signals. *See, e.g.*, col. 5, lines 35-41 of Hensley.

The Examiner has cited this section of Hensley on page 4, paragraph 16 of the Office Action to support his position that Hensley discloses “multiple output formats” and capability to “switch seamlessly between the different formats” (emphasis ours). The applicants respectfully disagree with this interpretation of Hensley. Hensley has used the term “format” very specifically to refer to whether a signal is in video or audio form, NTSC or PAL, and/or mono or stereo or other audio format. *See, e.g.*, col 3, line 66 through col. 4, line 2 of Hensley. Hensley also uses the term “format” very specifically to refer to the MPEG format of the input video streams. *See, e.g.*, col. 4, lines 2-32 of Hensley. Clearly, because the output signals of Hensley are in decoded form, the “format” of the output signals necessarily refers to whether such output signals are audio, video, PAL, NTSC, etc.—the “format” cannot refer to or be interpreted as compression (encoding) formats because the output signals are decoded.

Accordingly, the following items can be noted about the system of Hensley:

1. In contrast to the “many-to-one” concept of Radha discussed in section I.A.1 above, Hensley uses a “many-to-many” concept—several (“many”) input video signals are decoded into corresponding several (“many”) decoded output signals. In a situation where there is only one input signal, there is only one decoded output signal (“one-to-one”).
2. In contrast to the intermixing to form a single output stream as discussed in section I.A.2 above for Radha, Hensley does not intermix multiple signals to form a single signal. Rather, Hensley separately decodes the input signals into corresponding decoded output signals—a switching array 30 is used to switch between the decoded signals.
3. In contrast to the encoded output of Radha described above in section I.A.3, the output signals of Hensley are decoded.

C. No Motivation to Combine Radha and Hensley

A person skilled in the art would not have any motivation to combine Radha and Hensley. Radha uses a technique that needs to combine/intermix multiple input signals to form a single output signal. This is the “many-to-one” implementation discussed above. Thus, such a skilled person would not look to Hensley, which teaches a “many-to-many” and/or a “one-to-one” implementation as described previously. Simply put, Hensley uses an implementation that does not make technical sense to use in the system of Radha from a skilled person’s point of view.

D. Teachings in Both References Against Making the Combination

As described above, Radha uses a system that intermixes input video signals to form a single output signal. In contrast, Hensley does not mix his input signals. Rather, Hensley separately decodes each input signal and correspondingly generates separate multiple decoded output signals. The switching array 30 is used to switch between the decoded output signals. If the decoded output signals of Hensley are intermixed to form a single output signal (as in Radha), then the switching array 30 of Hensley would be incapable of switching between different signals, rendering useless the switching array 30 and/or other components of Hensley’s system.

As another consideration against making the combination, Radha outputs an encoded (compressed) output signal. A network sends this encoded output signal to a receiving device, which uses a decoder to decode the received encoded output signal. One purpose of encoding is to reduce the amount of data being transmitted, so as to improve efficiency and speed of transmission across a vast communication network. In the example of Radha, the encoded output signal is being transmitted by a television broadcaster to receiving televisions.

In contrast to Radha, Hensley outputs decoded output signals. Such decoded output signals would not transmit optimally in the television broadcast system of Radha. Indeed, the system of Hensley is intended to be used within a single device or self-contained environment where transmission across a vast network is not involved. For example, Figure 1 and other figures of Hensley show electronic components (decoders, switch, CPU, etc.) that are found normally in a single device, and it is clear that such electronic components are not spread across a distributed communication network, such as in Radha.

II. Discussion Of The Applicants' Claims

On the basis of the discussion above, independent claims 1, 11, 27, 36, 49, and 54 are allowable over the cited references, since there is no legal or technical basis for combining the references. However, to facilitate prosecution, the claims are nevertheless amended to further distinguish over the cited references.

Independent claim 1 is amended to recite a “single packetized stream of video information in a first format” that is transcoded to “multiple compressed output streams of video information having different second compression formats.” These amendments are intended to cover the “one-to-many” implementation disclosed by the applicants in the present application. That is, a single input stream is transcoded into multiple output streams. The output streams are compressed during the transcoding process into different compression formats, such as MPEG-1, MPEG-2, MPEG-4, H.263, M-JPEG, M-GIF, ACELP, MP1, MP2, MP3, and G.723.1 as examples. *See, e.g.*, the last line of page 12 through the end of the first full paragraph of page 13 of the present application, which describes the encoder 235 of Figure 2B, which compresses the output video streams. *See also* claim 7.

These recitations distinguish over both Radha and Hensley. Radha does not disclose, teach, or suggest multiple compressed output streams. Rather, Radha discloses a single encoded output stream. Moreover, Radha is completely silent with regards to “transcoding” from a first format to “different second compression formats,” since as explained previously, Radha only provides a single output video stream, which therefore necessarily has only one compression format.

As explained above, Hensley does not disclose, teach, or suggest compressed output streams. Rather, Hensley generates decoded output signals. Additionally, Hensley is completely silent with regards to “different second compression formats.” At best, Hensley provides different “formats” in that some outputs may be video while other outputs are audio. However, since Hensley provides decoded outputs, Hensley necessarily does not generate different “compression formats” for its output signals, as recited in amended claim 1. Accordingly, claim 1 is further allowable over the cited references.

Dependent claim 2 recites that the “gateway transcoding device decodes the single packetized stream of video information having the first format, and then re-encodes the

decoded single stream of video information into the multiple compressed output streams having the second formats.” This decoding and then re-encoding feature is discussed on page 8, lines 27-32; the last line of page 12 through the end of the first full paragraph of page 13; and elsewhere in the present application.

This feature is clearly not disclosed, taught, or suggested by any of the cited references. For example, Radha encodes input video signals, and/or decodes output video signals for display. Radha does not decode a single input stream and then re-encodes into a plurality of different compression formats as recited in claim 2. Hensley only decodes, and does not re-encode. Accordingly, claim 2 is allowable over the cited references.

Independent claims 11, 27, 36, 49, and 54 are amended in a manner similar to independent claim 1. For the sake of brevity, the discussion and reasoning for these amendments will not be repeated herein. The Examiner is kindly requested to refer to the above discussions as needed for clarification. Independent claims 11, 27, 36, 49, and 54 are now further allowable over the cited references. Various claims that are dependent on these independent claims are amended to make their recitations consistent with their amended base independent claims and/or to recite additional allowable subject matter.

III. Information Disclosure Statement(s)

Enclosed is a third Supplemental Information Disclosure Statement (IDS) along with a form PTO-1449 listing several references from the assignee’s other pending applications. The appropriate certification is provided in the IDS for the applicable references listed on the form PTO-1449. The form PTO-1449 lists Guetz (U.S. Patent No. 6,091,777), which was previously submitted in a second Supplemental IDS filed on February 19, 2004. The Examiner up to now has not yet provided official confirmation that Guetz has been considered (perhaps the second IDS was misplaced at the USPTO). Therefore, Guetz is being resubmitted herein to ensure that it is considered. It is believed that a fee is not required for this third Supplemental IDS, since the appropriate certification has been provided and because Guetz was already previously submitted.

The current claims are allowable over the references listed on the form PTO-1449. The listed references, singly or in combination, do not disclose, teach, or suggest what is recited in the current claims.

IV. Conclusion

Overall, none of the references singly or in any motivated combination disclose, teach, or suggest what is recited in the independent claims. Thus, given the above amendments and accompanying remarks, the independent claims are now in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

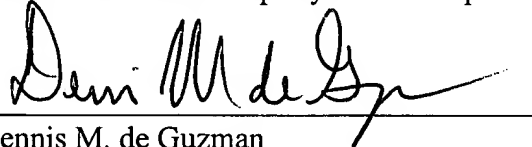
If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to the allowability of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 622-4900.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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DMD:wt

Enclosures:

Postcard
Petition for Extension of Time
Fourth Supplemental Information Disclosure Statement

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